Fruit IPM 7/12/16 Dean Polk, David Schmitt, Atanas Atanassov, and Carrie Mansue

Peach:

Oriental Fruit Moth (OFM): The second flight is underway in all counties. Populations in southern counties are low in peaches, but higher in apples. Treatment timing will depend on the material that you choose to use. Please see the insecticide timings below for insecticide type:

	OFM 2 nd Generation Timing							
			Insecticide Type					
County/Region	Degree Days	Conventional	Intrepid / IGRs	Diamide				
	by 7/11 base	2100-2200; 2450-2500	2050-2100; 2400-2450	(Altacor, Belt,				
	45			Voliam products)				
				2025-2150; 2375-2400				
Gloucester –	1872	1 st 7/18-7/21	1 st 7/17-7/18	1 st 7/16-7/20				
Southern								
Hunterdon –	1665	1 st 7/23-7/27	1 st 7/21-7/23	1 st 7/20-7/26				
Northern								

Tarnished Plant Bug and other Cat-Facing Insects: Sweep sampling in flowering and weedy ground cover shows up to 27 adults and nymphs present per 50 sweeps. Few to no cat-facing insects are present in weed-free turf ground cover.

Brown Marmorated Stink Bug (BMSB): Trap counts show very low numbers from surveyed farms in northern counties, slightly higher in southern counties. Most of the insects found in pyramid traps are native brown stink bugs. Very little damage is present.

Tufted Apple Budmoth (TABM): This is not an issue at this time.

Thrips: Thrips are active. See last newsletter for thrips control - Delegate @ 6-7 oz/ac, or Lannate SP @ 1#/A (or LV @1.5-3 pt/A). The addition of a non-ionic surfactant can help improve control. Prolonged periods of dry weather favor thrips buildup, so make sure to check your fruit during this kind of weather pattern.

Japanese Beetle and other Scarab Beetles: Japanese beetle adults are present in all counties, but at low levels. Most insecticides will control these insects but the best materials are formulations containing Imidacloprid (Admire Pro; Leverage); Carbaryl (Sevin); Phosmet (Imidan); or Fenpropathrin (Danitol). Most neonicotinoids have fast knock-down properties when also used for aphids and other target pests, but need to be used at their higher rates. Besides imidacloprid (Admire), these include Assail, Actara, and Belay.

Apple:

Codling Moth (CM): Trap counts are low, except on a couple of sites in northern counties. The CM timings are updated as below:

Codling Moth Degree Day Timing									
	Degree	Application and Insecticide Type							
County Area	Days	Rimon, In	trepid,		Standard Insecticides,				
	base 50	Diamides,	Delegate:		1250DD				
	as of	1150-120	0DD		1550-1600DD				
	7/12	1450-150	0DD						
DD		1150 1200 1500			1250	1550	1600		
Southern	1394	past	past	7/16	past	7/18	7/20		
Northern	1215	past	past	7/24	past	7/26	7/28		

Woolly Apple Aphid (WAA): Colony numbers have increased slightly in northern counties. See last newsletters for control suggestions. We are using a provisional action threshold of 10 colonies per tree, and our highest count in northern counties is 4 colonies per tree.

Tree Fruit Trap Counts – Southern Counties

Week Ending	STLM	TABM-A	CM	AM	OFM-A	DWB	OFM-P	TABM-P	LPTB	PTB
4/9	4				55		0			
4/16	48				25		3			
4/23	14	0			89		9			
4/30	20	0	32		81		9	1		
5/7	0	0	7		38		3	0	0	
5/14	4	1	7		23		0	0	16	
5/21	0	0	7		35		1	1	44	
5/28	0	8	9		9		0	8	42	
6/4	0	0	15		11		0	8	52	
6/11	20	25	8		11	47	3	27	90	
6/18	5	13	1		0	45	0	17	33	
6/25	18	14	6		5	34	0	10	20	
7/2	7	2	4		11	1	2	2	23	0
7/9	5	0	1		14	89	2	4	18	0

Tree Fruit Trap Counts – Northern Counties

Week Ending	STLM	TABM-A	CM	AM	OFM-A	DWB	OBLR	OFM-P	TABM-P	LPTB	РТВ
4/2	0.3							0.0			
4/9	4				0.0			0.0			
4/16	20				0.0			0.0			

4/23	34			4.3			7.0			
4/30	59		0.4	10.3			10.8			
5/7	122		0.1	1.8			2.3			
5/14	14	0.2	1.3	3.0			1.2	0.1	0.0	0.0
5/21	32	1.1	3.7	5.8			1.7	0.6	4.2	0.0
5/28	16	2.0	2.8	11.0	8.8	0.0	1.2	0.3	6.9	0.0
6/4	23	3.7	3.1	1.2	5.2	0.0	1.6	11.3	20.3	0.8
6/11	191	16.6	4.0	0.8	3.4	0.0	0.2	29.9	12.0	1.0
6/18	37	8.0	4.6	5.4	0.6	0.0	1.7	15.4	10.2	2.3
6/25	83	5.6	2.2	5.6	0.4	0.0	1.6	5.3	3.4	0.8
7/2	40	3.3	1.6	5.4	0.2	0.0	1.5	9.3	8.8	0.3
7/9	26	1.3	0.7	6.4	0.2	0.0	1.2	1.1	5.1	1.3

Blueberry:

Spotted Wing Drosophila (SWD): Trap counts of males increased slightly this week. In unsprayed fields, 1 sample was found with live larvae.. Growers are advised to maintain a 7 day program for the last of Bluecrop, Draper and later varieties.

Oriental Beetle (OB): OB trap counts have decreased compared to the previous week. While these insects will continue to emerge, mate and lay eggs over the next several weeks, the flight peak is over. Any imidacloprid treatments made over the next week should help control OB. After the middle of the month, the effectiveness of Admire drops off as larvae enter the 3rd instar stage.

Sharpnosed Leafhopper (SNLH): First generation adult SNLH continue to be active at low levels. Most of the treatments being used for SWD will also suppress SNLH. A second generation should be present in mid August through September. That second generation will require its own special management, since all fruit will be off the bushes by that time.

Aphids: Aphids are still present, but not really a problem. Small populations remain on the lower parts of bushes on the tips of developing shoots and canes, especially on Elliott.

Scale (Putnam and other scale insects): Incidence of scale is very low. No treatments are suggested until we get to the 2^{nd} generation crawler stage

Anthracnose: Incidence of anthracnose is very low on the fruit that is left in the field.

Didebeirg IIa	ip Counts				
Week Ending	CBFW	SNLH	OB	BBM	SWD males
6/25	3.0	0.5	2328	0.03	0.4
7/2	1.2	0.63	2439	0.04	0.7
7/9	0.4	0.5	1930	0.15	1.02

Blueberry Trap Counts

CBFW-cranberry fruitworm, SNLH – sharpnosed leafhopper, OB – oriental beetle, BBM – blueberry maggot, SWD – spotted wing drosophila

Grape

Grape Root Borer (GRB): Trap counts indicate that borer adults have started to emerge. Adults that are being found in traps are likely from wild grapes in the surrounding woods, since most NJ grape acreage does not have a borer problem. The provisional action threshold is set at 5% of vines infested as defined by the number of vines in a vineyard that are accompanied by empty pupal cases from which adults have emerged. If you do have significant borer populations then treatments would usually be applied as soon as possible using Lorsban on the bases of the vines. Use a maximum of 4.5 pt/100 gal of spray volume, applied to the ground in a 15 square ft. area around the base of each vine. For all practical purposes, given most vine spacing, this means applying the insecticide to a 2' band on either side of the row directed to the ground. At the label rate for a spray volume of 2 qt per vine, this is a high volume application. The most effective applications will place the insecticide in the top 1-2'' of soil. Since Lorsban ties up on organic matter, it can take quite a bit of water to move it down the soil profile. Therefore applications made just prior to rain events may be more effective.

Week Ending	Grape Berry Moth	Grape Root Borer
6/18	2	-
6/25	1	0
7/2	2	0
7/9	3	2

Grape Trap Counts -3 locations, 6 blocks in southern counties